

**REMARKS**

A. Status of the Claims and Explanation of the Amendments

Currently, claims 1-49 are pending. Of these claims, claims 4-30, 32-36, and 44-47 are withdrawn from consideration.

Claims 1-3, 31, 37-43, 48, and 49 have been rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over U.S. Patent No. 5,928,279 to Shannon (“Shannon”) in view of U.S. Patent No. 4,614,221 to Masumoto (“Masumoto”). Applicant respectfully disagrees with this rejection.

B. Applicant’s Claims Are Patentable Over Shannon in View of Masumoto

Applicant respectfully traverses the rejection of claims 1-3, 31, 37-43, 48, and 49 over Shannon, in view of Masumoto. Briefly, the traversal is based on at least the following grounds: (1) there is no motivation to combine references, (2) the proposed combination relies on impermissible hindsight reconstruction based on applicant’s invention, and (3) the Masumoto reference comes from a very different area of art such that one skilled in the art designing medical devices would not look to this reference. Accordingly, applicant respectfully requests reconsideration and withdrawal of this pending rejection. MPEP §§ 2143 and 2145.

According to the Office Action, the combination of Shannon and Masumoto teaches all of the claim elements of Applicant’s independent claims 1, 31, 37, and 41. The Office Action further alleges that the combination of Shannon and Masumoto would have been obvious at the time of Applicant’s invention. Applicant respectfully disagrees, for several reasons. First, Applicant disagrees with the Examiner’s characterization of the specification of Shannon. The Shannon reference does not teach that a stent can be made of a “cobalt metal

alloy”, as the Examiner suggests, but instead merely mentions that a suitable cobalt-containing metal may be a bimetallic alloy, where the other component is iron. This can be seen by considering col. 6, lines 13-18 of Shannon:

[a]s shown in the figures of this patent application, this particular stent 14 is composed of rigid but resiliently flexible thread elements or wires 18. These three elements or wires 18 are formed of metal, such as an alloy of cobalt, chromium, nickel, or molybdenum, wherein the alloying residue is iron [emphasis added].

Shannon only states that a cobalt-iron alloy is appropriate for the construction of Shannon’s stent, and does not suggest the general suitability of any cobalt alloy. Thus, Shannon does not provide any motivation for one of ordinary skill in the art to substitute Shannon’s bimetallic iron-cobalt wire with any other type of cobalt-containing wire, much less one made of an amorphous metal alloy, as recited in applicant’s claims. Moreover, Shannon does not specify that the bimetallic wire is amorphous, a fact that even the Examiner concedes [Office Action, p. 3, lines 1-2].

Masumoto is directed to making thin amorphous metal wire. While Masumoto states that the wire “is superior to conventional metal wire of a crystalline structure in many chemical, electromagnetic, and physical properties”, Masumoto only discloses that the wire “could be very useful in connection with numerous products such as electric and electronic parts, electromagnetic parts, composite materials, and textile materials” [Masumoto, col. 3, line 63 to col. 4, line 2]. There is no teaching or suggestion in Masumoto that its amorphous metal wires could be used in any type of medical device, much less an implantable medical device as claimed.

Moreover, the mere fact that Masumoto asserts its wires have superior chemical, mechanical and physical properties is not, in and of itself, enough to provide motivation to use

the wires in implantable medical devices. Nowhere in Masumoto is there a teaching or suggestion that these wires are useful in medical devices. In fact, the chemical, mechanical, and physical environments experienced by medical devices that are implanted in one's body are significantly different from the chemical, mechanical, and physical environments associated with electric and electronic parts, electromagnetic parts, composite materials, and textile materials (i.e., "Masumoto's suggested uses"). Thus, it is not obvious from Masumoto's specification that amorphous metal wire appropriate for Masumoto's suggested uses would also be appropriate for implantable medical devices.

The Examiner also alleges that one of ordinary skill in the art would be motivated to use Masumoto's amorphous metal wire in an implantable medical device because Masumoto's process produces a wire "of high quality" that has a "circular cross-section" [Office Action, p. 3, line 5]. However, applicant fails to see why these alleged features should provide any motivation to apply Masumoto's wires to a medical device; *i.e.*, modify Shannon's stent. While it is true that any wire for making a stent (including Shannon's bimetallic cobalt-iron wire) must be of sufficiently "high quality" that it does not mechanically fail or chemically degrade, once it is implanted inside a patient's artery, this quality is not a specific motivation to apply wires for electronic devices into medical devices. Moreover, "high quality" in the electronics field of art may well be attributable to different properties as compared to "high quality" in the medical device field. Thus, the Office Action's reliance on these features of Masumoto's specification is misplaced, because there is no motivation to combine the cited references to reach the claimed invention.

In addition, applicant points out that the Masumoto reference originates in the electronics field of art and its teachings are not at all related to the development of materials or

devices in the medical device field. One skilled in the art would have no reason to search or study this reference in the development of a better medical device. Furthermore, there would be no motivation for the skilled artisan to combine this diverse reference with Shannon.

In summary, a close look at the specifications of Shannon and Masumoto reveals that there is no motivation to combine these references in the manner proposed by the Office Action. It appears that the prior art combination proposed by the Examiner applies impermissible hindsight reconstruction. Accordingly applicant asserts that the pending claims are not obvious under 35 U.S.C. §103(a).

For at least these reasons, applicant respectfully requests reconsideration and withdrawal of the rejections of claims 1-3, 31, 37-43, 48, and 49.

### **CONCLUSION**

Based on the foregoing amendments and remarks, applicants believe that this application is in condition for allowance and respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

### **AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 4396-4001. In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for

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Docket No. 4396-4001

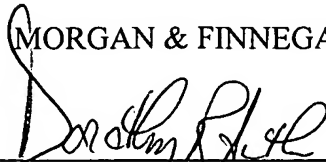
an extension of time to Deposit Account No. 13-4500, Order No. 4396-4001. A DUPLICATE  
OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,

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Dated: August 11, 2006

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